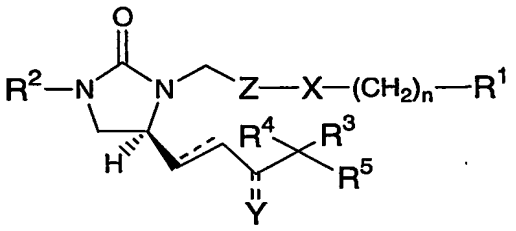
WHAT IS CLAIMED IS:

1. A compound having the structural formula I:



FORMULA I

or a pharmaceutically acceptable salt, enantiomer, diastereomer, prodrug or mixture thereof, wherein,

X is a bond, O or S;

Y represents =O, or -OH;

R^1 represents hydroxy, CN, $(CH_2)_pCO_2R^6$, $(CH_2)_nSO_3R^6$, $-CF_2SO_2NH_2$, $-SO_2NH_2$, $-CONHSO_2R_2$, $-SO_2NHCOR_2$, $-PO(OH)_2$, $CONHPO_2R^6$, $CONHR^8$, C_{1-4} alkoxy, $-(CH_2)_nNR^6R^7$, hydroxymethylketone or $(CH_2)_n$heterocyclyl, said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and optionally containing an acidic hydrogen atom;

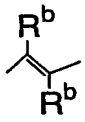
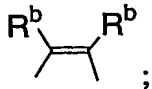
R^2 represents hydrogen, C_{6-10} aryl, or C_{1-4} alkyl;

R^3 and R^4 independently represents hydrogen, halogen, or C_{1-6} alkyl;

R^5 independently represent $(CH_2)_mC_{6-10}$aryl, $(CH_2)_mC_{5-10}$heteroaryl, $(CH_2)_mC_{3-10}$ heterocycloalkyl, $(CH_2)_mC_{3-8}$ cycloalkyl said cycloalkyl, heterocycloalkyl, aryl or heteroaryl unsubstituted or substituted with 1-3 groups of R^a;

R^6 and R^7 independently represents hydrogen, or C_{1-4} alkyl;

R^8 represents hydrogen, acyl, or sulfonyl;

Z represents $(C(R^b)_2)_n$,  or  ;

R^b independently represents H, halogen, C_{1-6} alkyl, C_{3-6} cylcoalkyl;

R^a represents C_{1-6} alkoxy, C_{1-6} alkyl, CF_3, nitro, amino, cyano, C_{1-6} alkylamino, or halogen;

=== represents a double or single bond;

p represents 1-3;

n represents 0-4; and

m represents 0-8.

2. A compound in accordance with claim 1 wherein R^1 is CN, $(CH_2)_mC_{5-10}$heterocyclyl, $-PO(OH)_2$, $CONHPO_2R^6$, $(CH_2)_pCO_2R^6$, or $CONHR^6$ said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

3. A compound in accordance with claim 2 wherein X is a bond.

4. A compound in accordance with claim 2 wherein X is S.

5. A compound in accordance with claim 2 wherein X is O.

6. A compound in accordance with claim 2 wherein Y is =O.

7. A compound in accordance with claim 2 wherein Y is –OH.

8. A compound in accordance with claim 2 wherein R^1 is $(CH_2)_mC_{5-10}$heterocyclyl, Y is OH, or =O, and X is a bond, said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

9. A compound in accordance with claim 2 wherein R^1 is $(CH_2)_mC_{5-10}$heterocyclyl, Y is OH, or =O, and X is S, said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

10. A compound in accordance with claim 2 wherein R^1 is $(CH_2)_mC_{5-10}$heterocyclyl, Y is OH, or =O, and X is O, said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

11. A compound in accordance with claim 8 wherein R^5 is $(CH_2)_mC_{6-10}$aryl, said aryl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

12. A compound in accordance with claim 9 wherein R^5 is $(CH_2)_mC_{6-10}$aryl, said aryl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

13. A compound in accordance with claim 10 wherein R^5 is $(CH_2)_mC_{6-10}$aryl, said aryl unsubstituted or substituted with 1 to 3 groups of R^a and all other variables are as originally described.

14. A compound which is:

(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-[6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,

(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-[6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,

(5*S*)-1-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,

(4*S*)-3-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methylimidazolidin-2-one,
(4*S*)-1-benzyl-3-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,
(5*S*)-1-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,
(4*S*)-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methylimidazolidin-2-one,
(4*S*)-1-benzyl-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,
(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(5S)-5-[(1E)-3-hydroxy-4-phenylbut-1-enyl]-1-[6-(1H-tetraazol-5-yl)hexyl]imidazolidin-2-one
(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-{4-[1-(1*H*-tetraazol-5-ylmethyl)cyclopropyl]butyl}imidazolidin-2-one,
(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-{4-[1-(1*H*-tetraazol-5-ylmethyl)cyclopropyl]butyl}imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-{4-[1-(1*H*-tetraazol-5-ylmethyl)cyclopropyl]butyl}imidazolidin-2-one,
(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-(3-{1-[2-(1*H*-tetraazol-5-yl)ethyl]cyclopropyl}propyl)imidazolidin-2-one,
(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-(3-{1-[2-(1*H*-tetraazol-5-yl)ethyl]cyclopropyl}propyl)imidazolidin-2-one,

(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-(3-{1-[2-(1*H*-tetraazol-5-yl)ethyl]cyclopropyl}propyl)imidazolidin-2-one,
(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-(2-{1-[3-(1*H*-tetraazol-5-yl)propyl]cyclopropyl}ethyl)imidazolidin-2-one,
(4*S*)-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-(2-{1-[3-(1*H*-tetraazol-5-yl)propyl]cyclopropyl}ethyl)imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-(2-{1-[3-(1*H*-tetraazol-5-yl)propyl]cyclopropyl}ethyl)imidazolidin-2-one,
(5*S*)-1-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,
(4*S*)-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-1-methylimidazolidin-2-one,
(4*S*)-1-benzyl-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-4-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]imidazolidin-2-one,
(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(4*S*)-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-{4-[(1*H*-tetraazol-5-ylmethyl)thio]butyl}imidazolidin-2-one,
(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(4*S*)-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-methyl-3-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-[4-(1*H*-tetraazol-5-ylmethoxy)butyl]imidazolidin-2-one,
(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,
(4*S*)-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-1-methylimidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-[4,4-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,
(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-1-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,

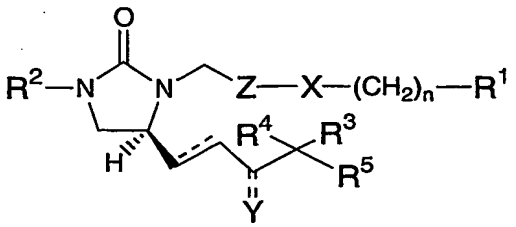
(4*S*)-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]-1-methylimidazolidin-2-one,
(4*S*)-1-benzyl-4-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-[3,3-difluoro-6-(1*H*-tetraazol-5-yl)hexyl]imidazolidin-2-one,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoic acid,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}heptanoic acid.
7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoic acid,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoate,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}heptanoate,
methyl-7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoate,
[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]acetic acid,
[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butyl)thio]acetic acid,
[(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]acetic acid,
methyl-[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]acetate,
methyl-[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butyl)thio]acetate,
methyl-[(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]acetate,
(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butoxy)acetic acid,
(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butoxy)acetic acid,
(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butoxy)acetic acid,

methyl-(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butoxy)acetate,
methyl-(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butoxy)acetate,
methyl-(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butoxy)acetate,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoic acid,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoate,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}heptanoic acid,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}heptanoate,
7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoic acid,
methyl-7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}heptanoate,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoic acid,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoate,
7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoic acid,
methyl-7-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoate,
7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoic acid,
methyl-7-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-4,4-difluoroheptanoate,
6-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}hexylphosphonic acid,
6-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}hexylphosphonic acid,

6-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}hexylphosphonic acid,
6-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}hexylphosphonic acid,
6-{(5*S*)-3-benzyl-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}hexylphosphonic acid,
6-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}hexylphosphonic acid,
[(4-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-3-benzyl-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(1,1-difluoro-4-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
6-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-3,3-difluorohexylphosphonic acid,
[(1,1-difluoro-4-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}butyl)thio]methylphosphonic acid,
[(4-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}-1,1-difluorobutyl)thio]methylphosphonic acid,
[(4-{(5*S*)-3-benzyl-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-1,1-difluorobutyl)thio]methylphosphonic acid,
[(4-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}-1,1-difluorobutyl)thio]methylphosphonic acid,
2-[1-(3-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,

2-[1-(3-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,
2-[1-(3-{(5*S*)-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,
2-[1-(3-{(5*S*)-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,
2-[1-(3-{(5*S*)-3-benzyl-5-[(1*E*)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,
2-[1-(3-{(5*S*)-3-benzyl-5-[(1*E*)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]ethylphosphonic acid,
N-{3-[1-(3-{(5S)-5-[(1E)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]propanoyl}methanesulfonamide,
N-{3-[1-(3-{(5S)-5-[(1E)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]propanoyl}methanesulfonamide,
N-{3-[1-(3-{(5S)-5-[(1E)-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]propanoyl}methanesulfonamide,
N-{3-[1-(3-{(5S)-5-[(1E)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-3-methyl-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]propanoyl}-methanesulfonamide,
N-{3-[1-(3-{(5S)-3-benzyl-5-[(1E)-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1-yl}propyl)cyclopropyl]propanoyl}methanesulfonamide, or
N-{3-[1-(3-{(5S)-3-benzyl-5-[(1E)-4,4-difluoro-3-hydroxy-4-phenylbut-1-enyl]-2-oxoimidazolidin-1yl}propyl)cyclopropyl]propanoyl}-methanesulfonamide, or a pharmaceutically acceptable salt, enantiomer, diastereomer, prodrug or mixture thereof.

15. A method for treating ocular hypertension or glaucoma comprising administration to a patient in need of such treatment a therapeutically effective amount of a compound of formula I,



FORMULA I

or a pharmaceutically acceptable salt, enantiomer, diastereomer, prodrug or mixture thereof, wherein,

X is a bond, O or S;

Y represents =O, or -OH;

R^1 represents hydroxy, CN, $(CH_2)_pCO_2R^6$, $(CH_2)_nSO_3R^6$, $-CF_2SO_2NH_2$, $-SO_2NH_2$, $-CONHSO_2R_2$, $-SO_2NHCOR_2$, $-PO(OH)_2$, $CONHPO_2R^6$, $CONHR^8$, C_{1-4} alkoxy, $-(CH_2)_nNR^6R^7$, hydroxymethylketone or $(CH_2)_n$heterocyclyl, said heterocyclyl unsubstituted or substituted with 1 to 3 groups of R^a and optionally containing an acidic hydrogen atom;

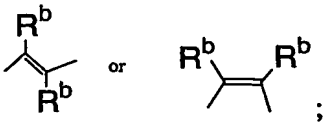
R^2 represents hydrogen, C_{6-10} aryl, or C_{1-4} alkyl;

R^3 and R^4 independently represents hydrogen, halogen, or C_{1-6} alkyl;

R^5 independently represent $(CH_2)_mC_{6-10}$aryl, $(CH_2)_mC_{5-10}$heteroaryl, $(CH_2)_mC_{3-10}$ heterocycloalkyl, $(CH_2)_mC_{3-8}$ cycloalkyl said cycloalkyl, heterocycloalkyl, aryl or heteroaryl unsubstituted or substituted with 1-3 groups of R^a;

R^6 and R^7 independently represents hydrogen, or C_{1-4} alkyl;

R^8 represents hydrogen, acyl, or sulfonyl;

Z represents $(C(R^b)_2)_n$,  ;

R^b independently represents H, halogen, C_{1-6} alkyl, C_{3-6} cylcoalkyl;

R^a represents C_{1-6} alkoxy, C_{1-6} alkyl, CF_3, nitro, amino, cyano, C_{1-6} alkylamino, or halogen;

--- represents a double or single bond;

p represents 1-3;

n represents 0-4; and

m represents 0-8.

16. A method in accordance with claim 15 wherein the compound of formula 1 is administered in a topical formulation as a solution or suspension.

17. A method according to claim 16 wherein a second active ingredient belonging to the group consisting of: β-adrenergic blocking agent, parasympatho-mimetic agent, sympathomimetic agent, carbonic anhydrase inhibitor, a Maxi-K channel blocker and a prostaglandin, hypotensive lipid, neuroprotectant, and 5-HT2 receptor agonist is added to the topical formulation.

18. A method according to claim 17 wherein the β-adrenergic blocking agent is timolol, betaxolol, levobetaxolol, carteolol, or levobunolol; the parasympathomimetic agent is pilocarpine; the sympathomimetic agent is epinephrine, brimonidine, iopidine, clonidine, or para-aminoclonidine, the carbonic anhydrase inhibitor is dorzolamide, acetazolamide, metazolamide or brinzolamide; the prostaglandin is latanoprost, travaprost, unoprostone, rescula, or S1033, the hypotensive lipid is lumigan, the neuroprotectant is eliprodil, R-eliprodil or memantine; and the 5-HT2 receptor agonist is 1-(2-aminopropyl)-3-methyl-1H-imdazol-6-ol fumarate or 2-(3-chloro-6-methoxy-indazol-1-yl)-1-methyl-ethylamine.

19. A method for treating macular edema or macular degeneration, treating dry eye, increasing retinal and optic nerve head blood velocity, increasing retinal and optic nerve oxygen tension or providing a neuroprotection, comprising administration to a patient in need of such

treatment a pharmaceutically effective amount of a compound of formula I as recited in claim 1.

20. The method according to Claim 19 wherein the compound of formula I is applied as a topical formulation and an active ingredient belonging to the group consisting of β-adrenergic blocking agent, parasympatho-mimetic agent, sympathomimetic agent, carbonic anhydrase inhibitor, and a prostaglandin, hypotensive lipid, neuroprotectant, and 5-HT2 receptor agonist is added to the formulation.

21. A method according to claim 20 wherein the the β-adrenergic blocking agent is timolol, betaxolol, levobetaxolol, carteolol, or levobunolol; the parasympathomimetic agent is pilocarpine; the sympathomimetic agent is epinephrine brimonidine, iopidine, clonidine, or para-aminoclonidine, the carbonic anhydrase inhibitor is dorzolamide, acetazolamide, metazolamide or brinzolamide; the prostaglandin is latanoprost, travaprost, unoprostone, rescula, or S1033, the hypotensive lipid is lumigan, the neuroprotectant is eliprodil, R-eliprodil or memantine; and the 5-HT2 receptor agonist is 1-(2-aminopropyl)-3-methyl-1H-imdazol-6-ol fumarate or 2-(3-chloro-6-methoxy-indazol-1-yl)-1-methyl-ethylamine.

22. A method according to claim 16 in which the topical formulation optionally contains xanthan gum or gellan gum.

23. A method for stimulating bone formation, treating or reducing the risk of contracting a disease state or condition related to abnormal bone resorption in a mammal in need thereof comprising administering to said mammal a therapeutically effective amount of a compound of formula I as recited in claim 1.

24. A method according to claim 23 wherein said disease state or condition is selected from the group consisting of osteoporosis, glucocorticoid induced osteoporosis, Paget's disease, abnormally increased bone turnover, periodontal disease, tooth loss, bone fractures, rheumatoid arthritis, periprosthetic osteolysis, osteogenesis imperfecta, metastatic bone disease, hypercalcemia of malignancy, and multiple myeloma.

25. A method according to claim 19 which additionally contains a bisphosphonate active selected from the group consisting of alendronate, cimadronate, clodronate, tiludronate, etidronate, ibandronate, neridronate, olpandronate, risedronate, piridronate, pamidronate, zolendronate, pharmaceutically acceptable salts thereof, and mixtures thereof.

26 A method according to Claim 25 wherein said bisphosphonate is alendronate, pharmaceutically acceptable salts thereof, and mixtures thereof.

27. A method according to Claim 19 comprising administering another agent selected from an organic bisphosphonate; a cathepsin K inhibitor, an estrogen, an estrogen receptor modulator, an androgen receptor modulator, an inhibitor of osteoclast proton ATPase, an inhibitor of HMG-CoA reductase, an integrin receptor antagonist, an osteoblast anabolic agent, calcitonin, vitamin D, a synthetic Vitamin D analogue, or a pharmaceutically acceptable salt or mixture thereof.

28. A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a compound of formula I, as recited in any one of claims 1 to 14.

29. A compound of any one of claims 1 to 14, or a pharmaceutically acceptable salt thereof, for use in medicinal therapy.

30. Use of a compound of any one of claims 1 to 14, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating ocular hypertension or glaucoma.

31. Use of a compound of any one of claims 1 to 14, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating macular edema or macular degeneration, treating dry eye, increasing retinal and optic nerve head blood velocity, increasing retinal and optic nerve oxygen tension or providing a neuroprotection.

32. Use of a compound of any one of claims 1 to 14, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for stimulating bone formation, treating or reducing the risk of contracting a disease state or condition related to abnormal bone resorption.